

Notice of Allowability	Application No.	Applicant(s)	
	10/759,587	HUANG, TSUNG-CHUNG	
	Examiner	Art Unit	
	Carlos Lugo	3676	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on April 20, 2005.
2. ☒ The allowed claim(s) is/are 1-9.
3. ☒ The drawings filed on 16 January 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

1. This Office Action is in response to applicant's amendment filed on April 20, 2005.

Reasons For Allowance

2. The following is an examiner's statement of reasons for allowance:

Claim 1 is allowable over the prior art of record because the teachings of the references taken as a whole do not teach or render obvious the combination set forth.

Miller (US 4,588,221) discloses an assembly comprising a housing (22) having a hole; a shaft (66) having various cross sections areas (Figure 6) and adapted to be inserted through the hole of the housing; a longitudinal groove formed on the exterior of the shaft (between each prong 68, see Figure 6); a circumferential groove formed on the exterior of the shaft being in communication with the longitudinal groove (between 78 and 90, see Figure 6); an axial hole formed on the shaft (where 72 is located in Figure 6); a knob (38) having an axle portion (at 40); and an axial hole axially formed in the knob for allowing the shaft to be inserted therein (Figure 2).

Cameron (US 2,473,937) teaches that it is well known in the art to use a screw (24) to attach the handle (10) to a shaft (14).

Young (US 2,698,763) teaches that it is well known in the art to have the combination of a housing (20) having a cover (18).

However, Miller, as modified by Cameron and Young, fails to disclose that the housing includes a protrusion radially and inwardly formed on the periphery of the

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housing hole so as, in combination with the longitudinal and circumferential groove of the shaft, provide the engagement of the shaft to the housing. Young only teach that the shaft (9) is engaged to a circular plate (22) by some protrusions (24) that are radially and outwardly formed in the plate, not in the periphery of the housing hole.

Hartwell (US 5,316,355) discloses an assembly comprising a housing (60) having a hole (66 and 72); a shaft (22) having various cross sections areas and adapted to be inserted through the hole of the housing; a longitudinal groove formed on the exterior of the shaft (between the tapered portions 58); a knob (12) having an axle portion (connected to 22); and an axial hole axially formed in the knob for allowing the shaft to be inserted therein.

However, Hartwell fails to disclose that the shaft includes a circumferential groove and that the housing includes a protrusion radially and inwardly formed on the periphery of the housing hole so as, in combination with the longitudinal and circumferential groove of the shaft, provide the engagement of the shaft to the housing. Hartwell uses a snap-fit engagement, wherein the tapered portions 58 goes into grooves 66 located in the hole of the housing, to engage the shaft to the housing.

Further, new cited prior art, Best '387 and '868 and Nixon, teaches a shaft engaged to a housing by means of a protrusion. For example, Best '387 teaches a "housing" (98) having a hole and a protrusion (104) extending radially inwardly and a shaft (52). However, Best '387 fails to teach that the shaft has a circumferential

groove in communication with a longitudinal groove so as to provide engagement of the circumferential groove with the protrusion. Best '387 teaches that the shaft (52) only have a longitudinal groove (106) that receives the protrusion (Figure 7).

Best '868 also teaches a shaft (24) that only has a longitudinal groove (77) that receives a protrusion (76, Figure 8).

And Nixon also teaches a shaft (22) that only has a longitudinal groove that receives a protrusion (92, Figure 3).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

- Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lugo whose telephone number 571-272-7058. The examiner can normally be reached on 9-6pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on 571-272-7087. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

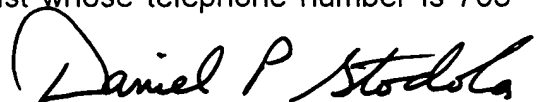
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-5771.

C.L.

Carlos Lugo

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June 9, 2005



DANIEL P. STODOLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600